#include <stdio.h>

void searchandcount(int arr[], int n, int key) {

int count=0;

int low = 0, high = n - 1;

while (low <= high)

{

int mid = low + (high - low) / 2;

if (arr[mid] == key)

{

count++;

high = mid - 1;

} else if (arr[mid] < key) {

low = mid + 1;

} else

{

high = mid - 1;

}

}

if (count!=0)

{

printf("found key %d and number of copies: %d", key, count);

}

else

{

printf("Key not found");

}

}

int main() {

int T;

printf("enter number of test cases");

scanf("%d", &T);

while (T--)

{

int n;

printf("enter no.of values to input");

scanf("%d", &n);

int arr[n];

printf("enter values");

for (int i = 0; i < n; i++)

{

scanf("%d", &arr[i]);

}

int key;

printf("enter key");

scanf("%d", &key);

searchandcount(arr, n, key);

}

return 0;